



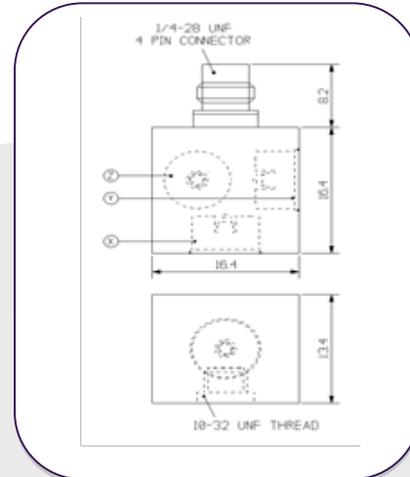
## ATI/14/TB Triaxial Piezo-Tronic IEPE Accelerometer (Case Isolated)

1mV/g up to 200mV/g  $\pm 10\%$  16.6mg Std Temp 125°C

A lightweight general purpose triaxial vibration transducer comprising of three voltage output piezo-electric sensing elements mounted orthogonally within a titanium block with welded construction. The ATI/14/TB is based upon the unique DJB Konic shear® design.

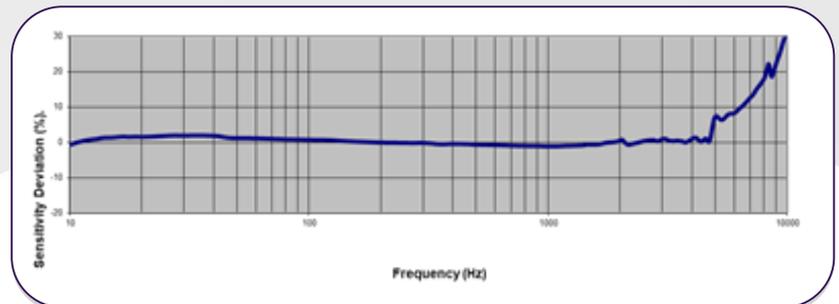
With a 1/4-28 UNF 4 pin connector and ruggedized single cables with three BNC labelled breakout leads the ATI/14/TB is well suited to Automotive/Aerospace applications. The ATI/14/TB is a case isolated version to ensure measurement accuracy on structures where grounding needs to be considered.

### ATI/14/TB

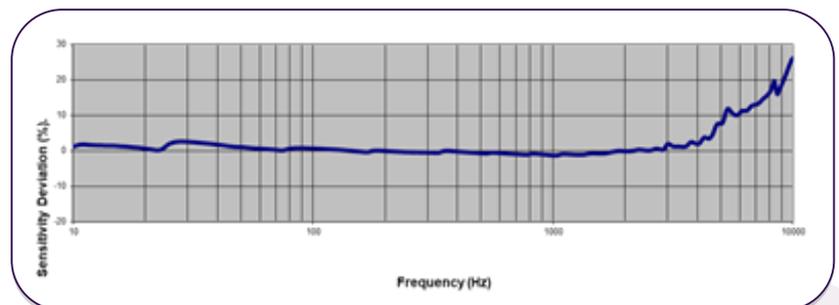


### Typical Frequency Response

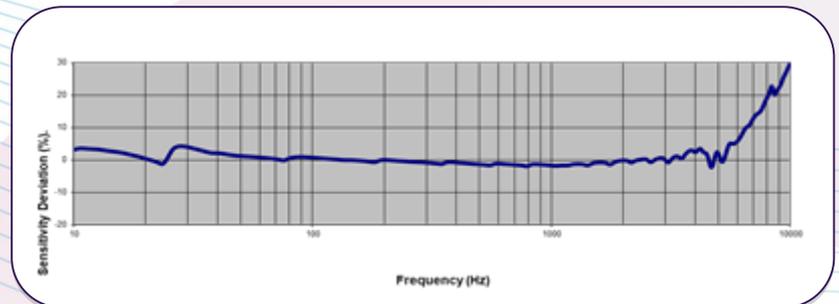
X



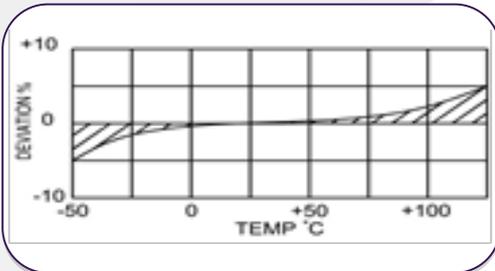
Y



Z



### Temperature Response



### Typical Spectral Noise (100mV/g):

|       |                                     |
|-------|-------------------------------------|
| 1Hz   | 345 $\mu\text{g}/\sqrt{\text{Hz}}$  |
| 10Hz  | 42.8 $\mu\text{g}/\sqrt{\text{Hz}}$ |
| 100Hz | 11.2 $\mu\text{g}/\sqrt{\text{Hz}}$ |
| 1kHz  | 5.67 $\mu\text{g}/\sqrt{\text{Hz}}$ |
| 10kHz | 5.23 $\mu\text{g}/\sqrt{\text{Hz}}$ |

Please note: For information and reference only. Data should not be used as pass / fail criteria for calibration purposes

**DJB Instruments (UK) Ltd**

Finchley Avenue,  
Mildenhall, Suffolk IP28 7BG

A UK company with UK-based manufacturing, assembly and calibration in-house.

Tel +44 (0)1638 712 288  
Email sales@djbinstruments.com  
Web www.djbinstruments.com

DJB Iss.5 2020



ISO 9001 – 00025363



## ATI/14/TB Triaxial Piezo-Tronic IEPE Accelerometer (Case Isolated)

1mV/g up to 200mV/g  $\pm 10\%$     16.6gm    Std Temp 125°C

|   | Metric                                |                            |                            | Imperial                   |                            |                            |
|---|---------------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Voltage Sensitivity @ 20°C                      | 0.1mV/(m/s <sup>2</sup> )             | 1.02mV/(m/s <sup>2</sup> ) | 10.2mV/(m/s <sup>2</sup> ) | 1mV/g                      | 10mV/g                     | 100mV/g                    |
| Resonant Frequency                              | X/Y $\geq 20$ kHz                     |                            |                            | Z $\geq 33$ kHz            |                            |                            |
| Typical Frequency range $\pm 5\%$<br>$\pm 10\%$ | 1Hz – 6kHz<br>0.7Hz – 7kHz            | 1Hz – 6kHz<br>0.7Hz – 7kHz | 1.5Hz – 6kHz<br>1Hz – 7kHz | 1Hz – 6kHz<br>0.7Hz – 7kHz | 1Hz – 6kHz<br>0.7Hz – 7kHz | 1.5Hz – 6kHz<br>1Hz – 7kHz |
| Cross Axis Error                                | $\leq 5\%$                            |                            |                            |                            |                            |                            |
| Insulation Resistance                           | $10^{10} \Omega$ at 250V              |                            |                            |                            |                            |                            |
| Temperature Range                               | -50/ +125°C                           |                            |                            | -58/ +257°F                |                            |                            |
| Voltage Sensitivity deviation<br>(20°C/68°F)    | -5% @ -50°C                           |                            | +5% @<br>+125°C            | -5% @ -58°F                |                            | +5% @ +257°F               |
| Supply Voltage                                  | 15/35 V DC                            |                            |                            |                            |                            |                            |
| Supply current                                  | 2-20mA                                |                            |                            |                            |                            |                            |
| Bias Voltage (20°C/68°F)                        | 10/14 VDC                             |                            |                            |                            |                            |                            |
| Base Strain Sensitivity                         | $\leq 0.002g/\mu$ strain              |                            |                            |                            |                            |                            |
| Max Continuous accn.g sine                      | 49033m/s <sup>2</sup>                 |                            |                            | 5000g                      |                            |                            |
| Saturation limit equiv. g                       | 49033m/s <sup>2</sup>                 | 4903m/s <sup>2</sup>       | 490m/s <sup>2</sup>        | 5000g                      | 500g                       | 50g                        |
| Case Material                                   | Titanium                              |                            |                            |                            |                            |                            |
| Mounting  | 10-32 UNF tapped hole                 |                            |                            |                            |                            |                            |
| Weight  | 16.6gm                                |                            |                            | 0.59oz                     |                            |                            |
| Case Seal                                       | Welded                                |                            |                            |                            |                            |                            |
| Size  | 16.4 x 16.4 x 12mm AT/14              |                            |                            | 0.65 x 0.65 x 0.47in       |                            |                            |
| Connector                                       | $\frac{1}{4}$ -28UNF, 4 Pin Connector |                            |                            |                            |                            |                            |

### Options:

AT/14, AT/14/TB, ATI/14/TB

**Please note: For information and reference only. Data should not be used as pass / fail criteria for calibration purposes**

**DJB Instruments (UK) Ltd**  
Finchley Avenue,  
Mildenhall, Suffolk IP28 7BG

**Tel** +44 (0)1638 712 288  
**Email** sales@djbinstruments.com  
**Web** www.djbinstruments.com

DJB Iss.5 2020

A UK company with UK-based manufacturing, assembly and calibration in-house.



ISO 9001 – 00025363